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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
MATZEK, MATTHEW D	
ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
04/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/646,979	MCCORMACK ET AL.	
	Examiner	Art Unit	
	MATTHEW D. MATZEK	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) *28-30* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

1. The amendment dated 1/31/2008 has been fully considered and entered into the Record. Claims 1-30 are currently pending. Claims 28-30 have been withdrawn from consideration. Claims 1-27 are currently active.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-5 and 7-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heyn et al. (US 6,106,956) in view of Haffner et al. (US 6,045,900) and Norquist et al. (US 6,447,875 B1) as presented in the previous Office Action.

a. Heyn et al. teach a polymeric film comprising at least first and second contiguous and coextruded portions, wherein the first portion contains filler to increase its water vapor permeability and the second portion serves to improve the tensile strength of the film (Abstract). The first portion (carrier resin) of the film may be made of linear low-density polyethylene copolymer (LLDPE) (col. 2, lines 52-67). It is preferred that the carrier resin contains 65 weight percent or less filler (col. 3, lines 60-65). The second portion (letdown resin) may be made of the same or different polyolefins and as with the first resin the preferred composition is LLDPE. The second portion preferably contains no filler (col. 4, lines 26-39). The LLDPE used in this film is to have a density of about 0.900 to about 0.935g/cm^3 and a melt index of about 0.1 to about 5.0 grams per 10 minutes (col. 3, lines 10-15). The applied film meets the instantly claimed moisture vapor transmission rates (col. 6, lines 49-56) for diaper backsheets. The applied

reference is silent as to the use of a nonwoven support layer to be bonded to the oriented film. Instant claim 1 requires different ethylene copolymers with a density difference of at least 0.003 g/cc between the carrier and letdown resins. Heyn et al. provide this for in that the density of the ethylene copolymers may vary from 0.900 to about 0.935g/cm^3 and that the same or different copolymers may be used in the separate phases. As stated in the abstract the polymers used in each phase have different physical properties in order for separation to occur between the two phases. Heyn et al. fail to teach or suggest having the discrete regions of carrier resin phase completely intermixed with and surrounded by the letdown resin phase.

b. Haffner et al. teach a breathable barrier comprising a film layer comprising a filled film comprising about 50 to 70% calcium carbonate (col. 8, lines 23-25) and ethylene polymer (Abstract) and another layer comprising a nonwoven, spunbonded or bonded carded web layer (col. 3, lines 50-52). The laminate has a WVTR (MVTR) of more than 1500 g/m^2/day (col. 3, lines 34-37). Example 1 teaches the use of calcium carbonate (filler), LLDPE [carrier resin] (density of 0.918 g/cm^3 and a melt index of 3.5 g/10 min) and a LDPE [letdown resin] (density of 0.916 g/cm^3 and a melt index of 12 g/10 min). Examiner takes the position that the filler is necessarily contained within the carrier resin phase as the filler is mixed with the carrier resin and then formed into a layer. Haffner et al. teach the blending of LLDPE with densities desirably ranging from 0.86-0.88 g/m^3 with a second polyethylene ranging from 0.90 to 0.95 g/m^3 (col. 9, lines 1-5 and col. 10, lines 1-11) to form an intermediate layer that may also contain filler that

is similar in type and content to that of the breathable layer (col. 10, lines 48-58). This provides for density differences of up to 0.09 g/cm^3.

c. The basis weight of the film layer desirable ranges from 15-35 g/m^2 (col. 10, lines 59-64). An extensive list of ethylene (polyolefin) polymers has been disclosed including linear low-density polyethylene (LLDPE) (col. 7, line 49 – col. 8, line 8). The nonwoven layer may comprise spunbonded and bonded carded webs (col. 3, lines 46-52).

d. Claims 17 and 18 are rejected as the nonwoven woven layer may comprise multilayer nonwoven laminates (col. 11, lines 4-10). Claims 19 and 20 are rejected as the film layer may comprise multiple layers **12** (Fig. 1). Haffner et al. teach a WVTR in excess of 1500 g/m^2/day. This provides for the breathability of instant claim 23. Claim 25 is rejected as the base layer **14** comprises from about 50% to about 98% of the multilayer film thickness (col. 10, lines 66-67). Claims 26 and 27 are rejected as the breathable barrier of Haffner et al. may be used in garments and personal care products (col. 1, lines 14-17).

e. It is noted herein that the teachings of Haffner et al. include WVTR in excess of 1500 g/m^2/day. It is the Examiner's interpretation that such a teaching encompasses the ranges of 5,000 and 10,000 g/m^2/day as claimed herein. The use of material with high WVTR is recognized in the art of breathable barriers as it is evidenced herein by Haffner et al. The larger the WVTR value the greater the ability for the article to allow water vapor to be expelled from the article. This is highly desirable as the article is intentionally created for its breathability.

f. Since Heyn et al. and Haffner et al. are from the same field of endeavor (i.e. filler filled LLDPE films), the purpose disclosed by Haffner et al. would have been recognized in the pertinent art of Heyn et al.

g. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have bonded the film of Heyn et al. to the support layer of Haffner et al. as well as make the article according to the basis weights and density and melt flow index differences of Haffner et al. The skill artisan would have been motivated by the desire to create a breathable article that is capable of being used in personal absorbent articles.

h. Norquist et al. disclose a die apparatus that allows for the production of co-extruded polymeric articles with a plurality of distinct, discontinuous phases located within a surrounding matrix (abstract and Figure 4). Polyolefins may be used in the creation of the co-extruded article, for example the embedded phase may comprise polyethylene and the surrounding matrix may comprise polypropylene (claim 4). Various additives may be incorporated into the embedded phase to modify the properties of the finished web (col. 11, lines 56-60). Co-extruded webs formed using the apparatus and method of the invention are also suitable for use in various medical articles. In certain embodiments, phases are formed in the web matrix in order to provide increased strength and improved handling without affecting the overall conformability, transparency or breathability of the polymeric material. A preferred web matrix material for use in constructing such medical articles is polyethylene and a preferred embedded phase material is also polyethylene (col. 14, lines 48-65). Norquist et al. disclose that the

embedded phase is in fact a plurality of discrete embedded phases spaced apart from one another and are surrounded by a continuous matrix as instantly claimed (col. 13, lines 40-59).

i. Since Heyn et al. and Norquist et al. are from the same field of endeavor (i.e. co-extruded polymeric films), the purpose disclosed by Norquist et al. would have been recognized in the pertinent art of Heyn et al.

j. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have made the co-extruded film of Heyn et al. in the manner set forth in Norquist et al. The skill artisan would have been motivated by the desire to provide the co-extruded film of Heyn et al. with increased strength and improved handling without affecting the overall conformability, transparency or breathability of the polymeric material (col. 14, lines 47-55).

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heyn et al. (US 6,106,956) in view of Haffner et al. (US 6,045,900) and Norquist et al. (US 6,447,875 B1) as applied to claim 1 above, and further in view of Bansal (US 2003/017054 A1). The inventions of Heyn et al., Haffner et al. and Norquist et al. are silent as to the use of an ethylene with a melt index of at least 20g/10min as presented in the previous Office Action.

a. Bansal discloses a multiple component spunbonded web and laminates thereof comprising a LLDPE core component (abstract) that has a density between 0.91 and 0.95 g/cc and a melt index between 18g/10min to 22 g/10min [0013].

b. Since Heyn et al. and Bansal are from the same field of endeavor (i.e. co-extruded polymers), the purpose disclosed by Bansal would have been recognized in the pertinent art of Heyn et al.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have made the co-extruded film of Heyn et al. having the carrier resin being a polyethylene with a melt index of at least about 20 g/10 min. The skill artisan would have been motivated by the desire to create a product with superior grab tensile strength and minimized surface fuzzing [0026].

Response to Arguments

4. Applicant's arguments filed 1/31/2008 have been fully considered but they are not persuasive.

5. Applicant argues that neither Heyn et al. nor Haffner et al. provide for substantially all of the filler being separated from contact with the letdown phase. Examiner has relied upon Norquist et al. for such a limitation.

6. Applicant argues that Norquist et al. provide for co-extensive embedded phases that are not completely intermixed with and surrounded by the letdown phase. Applicant is directed to col. 13, lines 40-59 of Norquist et al. which disclose that the embedded phase is in fact a plurality of discrete embedded phases spaced apart from one another and are surrounded by a continuous matrix as instantly claimed. This description of an embodiment of Norquist et al. provides for the claimed structure. The filler is to be provided only in the embedded phase and as such provides for the filler being separated from contact with the letdown phase.

7. Applicant argues that the moisture vapor transmission rate of claim 23 is too great to be provided for by Haffner et al. Examiner takes the position that greater than 1500 serves as a starting point and all transmission rates in excess of 1500 are anticipated by such a teaching. Consequently, absent a clear and convincing showing of unexpected results demonstrating the criticality of the claimed transmission rate, it would have been obvious to one of ordinary skill in the art to optimize this result-effective variable by routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977).

8. Applicant argues that Bansal teaches the use of a multicomponent fiber rather than a monocomponent fiber of the claimed melt index. Paragraph 0026 of Bansal provides clear motivation to use LLDPE of higher melt index, which is the teaching Examiner has relied upon. The fact that the high melt index polymer is used with another component demonstrates that it may also be used in a co-extruded film. The formation of core-sheath fibers is analogous to the formation of the co-extruded films in that they both rely on multiple phases of polymers in conjunction to form a continuous construct.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

This application contains claims 28-30 drawn to an invention nonelected with traverse in the reply filed on 5/9/2005. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW D. MATZEK whose telephone number is (571)272-2423. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571.272.1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew D Matzek/
Examiner, Art Unit 1794

/Arti Singh/
Primary Examiner, Art Unit 1771